

## CLAIMS

1. A sealing material for semiconductor device, which is a sealing material containing a fluororubber as a rubber component and is characterized in that: the fluororubber inevitably contains a cured product of a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer; and copolymerization ratios of respective monomers in the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer are such that: a content of vinylidene fluoride is in the range of from 25 to 70 mol %; a content of hexafluoropropylene is in the range of from 15 to 60 mol %; a content of tetrafluoroethylene is in the range of from 15 to 60 mol %; and a fluorine content in the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is in the range of from 71.5 to 75 mass %.
2. The sealing material for semiconductor device according to claim 1, wherein curing of the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is performed by irradiation with ionizing radiation.
3. The sealing material for semiconductor device according to claim 1 or 2, wherein a fluorine content of the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is in the range of from 72 to 74.5 mass %.
4. The sealing material for semiconductor device according to claim 2 or 3, wherein an irradiation dose of the ionizing radiation is in the range of from 10 to 500 kGy.

5. A sealing material for semiconductor device, which is obtained by crosslinking, with ionizing radiation, a fluororubber preform containing a fluororubber component (a) comprising a vinylidene fluoride/ hexafluoropropylene elastic copolymer and/or a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer and a non-elastic fluoro-resin component (b) comprising a vinylidene fluoride (co)polymer in composition of the fluoro-resin component (b) of 1 to 50 parts by mass relative to 100 parts by mass of the fluororubber component (a).

6. The sealing material for semiconductor device according to claim 5, wherein a copolymerization ratio of respective monomers in the vinylidene fluoride/ hexafluoropropylene elastic copolymer is vinylidene fluoride/ hexafluoropropylene = (50 to 95)/(5 to 50) (in mol %).

7. The sealing material for semiconductor device according to claim 5 or 6, wherein a copolymerization ratio of respective monomers in the vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer is vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene = (20 to 80)/(10 to 70)/(10 to 70) (in mol %).

8. The sealing material for semiconductor device according to any of claims 5 to 7, wherein a fluorine content of the fluororubber component (a) is in the range of from 65 to 75 mass %.

9. The sealing material for semiconductor device according to any of claims 5 to 8, wherein a ratio of the fluororubber component (a) and the fluoro-resin component (b) is 5 to 20 parts by mass of the fluoro-resin component (b) relative to 100 parts by

mass of the fluororubber component (a).

10. The sealing material for semiconductor device according to any of claims 5 to 9, wherein an irradiation dose of the ionizing radiation is in the range of from 10 to 500 kGy.

11. A manufacturing method for a sealing material for semiconductor device, in which 100 parts by mass of a fluororubber component (a) comprising a vinylidene fluoride/ hexafluoropropylene elastic copolymer and/or a vinylidene fluoride/ hexafluoropropylene/ tetrafluoroethylene elastic copolymer and 1 to 50 parts by mass of a non-elastic fluoro resin component (b) comprising a vinylidene fluoride (co)polymer are mixed at a temperature of a melting point of the fluoro resin component (b) or higher, thereafter the mixture is preformed, and the obtained preform is irradiated with ionizing radiation.